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<120> A Method for Accelerating the Rate of Mucociliary Clearance

<130> 98,736-A

<140> 09/441,966  
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<151> 1998-12-22

<160> 71

<170> Microsoft Word 97

<210> 1  
<211> 179  
<212> PRT  
<213> Homo sapien

<400> 1  
Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val  
1 5 10 15

Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr  
20 25 30

Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser  
35 40 45

Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
50 55 60

Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
65 70 75 80

Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
85 90 95

Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr  
100 105 110

Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg  
115 120 125

Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn  
130 135 140

Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln  
145 150 155 160

Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly  
165 170 175

Ala Val Ser

<210> 2  
 <211> 197  
 <212> PRT  
 <213> Homo sapien

<220>  
 <221> sig\_peptide  
 <222> 1..18

<400> 2  
 Ala Gly Ser Phe Leu Ala Trp Leu Gly Ser Leu Leu Ser Gly Val  
 1 5 10 15

Leu Ala Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser  
 20 25 30

Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn  
 35 40 45

Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly  
 50 55 60

Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala  
 65 70 75 80

Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala  
 85 90 95

Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp  
 100 105 110

His Ser Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala  
 115 120 125

Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val  
 130 135 140

Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn  
 145 150 155 160

Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg  
 165 170 175

Gln Gln Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu  
 180 185 190

Ala Gly Ala Val Ser  
 195

<210> 3  
 <211> 153  
 <212> PRT  
 <213> Homo sapien

<400> 3  
 Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala  
 1 5 10 15

Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu  
 20 25 30

Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys  
 35 40 45

Glu Glu Cys Leu Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr Gly  
 50 55 60

Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser Ala  
 65 70 75 80

Pro Arg Arg Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn Tyr  
 85 90 95

Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala Ser  
 100 105 110

Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn Phe  
 115 120 125

Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu Glu  
 130 135 140

Ala Cys Met Leu Arg Cys Phe Arg Gln  
 145 150

<210> 4  
 <211> 58  
 <212> PRT  
 <213> Homo sapien

<400> 4  
 Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala  
 1 5 10 15

Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu  
 20 25 30

Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys  
 35 40 45

Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
 50 55

<210> 5  
 <211> 51  
 <212> PRT  
 <213> Homo sapien

<400> 5  
 Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro Arg  
 1 5 10 15

Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly  
 20 25 30

Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu  
 35 40 45

Lys Lys Cys  
 50

<210> 6  
 <211> 58  
 <212> PRT  
 <213> Homo sapien

<400> 6  
 Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala  
 1 5 10 15  
 Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn  
 20 25 30  
 Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu  
 35 40 45  
 Glu Ala Cys Met Leu Arg Cys Phe Arg Gln  
 50 55  
 <210> 7  
 <211> 51  
 <212> PRT  
 <213> Homo sapien  
 <400> 7  
 Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg  
 1 5 10 15  
 Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly  
 20 25 30  
 Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met  
 35 40 45  
 Leu Arg Cys  
 50  
 <210> 8  
 <211> 92  
 <212> PRT  
 <213> Homo sapien  
 <400> 8  
 Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val  
 1 5 10 15  
 Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr  
 20 25 30  
 Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser  
 35 40 45  
 Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
 50 55 60  
 Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
 65 70 75 80  
 Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser  
 85 90  
 <210> 9  
 <211> 708  
 <212> DNA  
 <213> Homo sapien  
 <220>  
 <221> misc\_feature  
 <222> 679..708

<223> /note= "n at positions 622, 679, 707 is any nucleic acid"

<400> 9  
 ggccgggtcg tttctcgccct ggctgggatc gctgctcctc tctgggtcc tggcggccga 60  
 ccgagaacgc agcatccacg acttctgcct ggtgtcgaag gtgggtggca gatgccggc 120  
 ctccatgcct aggtggtggt acaatgtcac tgacggatcc tgccagctgt ttgtgtatgg 180  
 gggctgtgac ggaaacagca ataattacct gaccaaggag gagtgcctca agaaatgtgc 240  
 cactgtcaca gagaatgcca cggtgtaccc ggccaccaggc aggaatgcag cgattcctc 300  
 tgtcccaagt gctcccagaa ggcaggattc tgaagaccac tccagcgata tttcaacta 360  
 tgaagaatac tgacccgcca acgcagtcac tggccttgc cgtgcaccc tccccacgctg 420  
 gtactttgac gtggagagga actcctgcaa taacttcatac tatggaggct gccggggcaa 480  
 taagaacagc taccgctctg aggaggcctg catgctccgc tgctccgccc agcaggagaa 540  
 tcctccctg ccccttggt caaagggtgg 600  
 ttgatcctt tcctgggag cntccatggt cttactgatt cgggtggca aggaggaacc 660  
 aggagcgtgc cctgcgganc gtctggagct tcggagatga caagggn 708

<210> 10  
 <211> 235  
 <212> PRT  
 <213> Homo sapien

<220>  
 <221> peptide  
 <222> 1..235  
 <223> /note= "Xaa at positions 198, 201, 226, and 233 are unknown amino acids"

<400> 10  
 Ala Gly Ser Phe Leu Ala Trp Leu Gly Ser Leu Leu Leu Ser Gly Val  
 1 5 10 15

Leu Ala Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser  
 20 25 30

Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn  
 35 40 45

Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly  
 50 55 60

Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala  
 65 70 75 80

Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala  
 85 90 95

Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp  
 100 105 110

His Ser Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala  
 115 120 125

Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val  
 130                   135                   140  
  
 Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn  
 145                   150                   155                   160  
  
 Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg  
 165                   170                   175  
  
 Gln Gln Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu  
 180                   185                   190  
  
 Ala Gly Ala Val Ser Xaa Trp Cys Xaa Ser Phe Ser Trp Gly Ala Ser  
 195                   200                   205  
  
 Met Val Leu Leu Ile Pro Gly Gly Lys Glu Glu Pro Gly Ala Cys Pro  
 210                   215                   220  
  
 Ala Xaa Arg Leu Glu Leu Arg Arg Xaa Gln Gly  
 225                   230                   235  
  
 <210> 11  
 <211> 179  
 <212> PRT  
 <213> Homo sapien  
  
 <220>  
 <221> peptide  
 <222> 1..170  
 <223> /note= "Xaa at positions 8, 17, 19, 21-26, 40, 42, 45-47, 52, 64,  
 103, 112, 114, 116-121, 135, 137, 140-142, 147, and 159 is any  
 amino acid residue"  
  
 <400> 11  
 Ala Asp Arg Glu Arg Ser Ile Xaa Asp Phe Cys Leu Val Ser Lys Val  
 1                   5                   10                   15  
  
 Xaa Gly Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Trp Trp Tyr Asn Val Thr  
 20                   25                   30  
  
 Asp Gly Ser Cys Gln Leu Phe Xaa Tyr Xaa Gly Cys Xaa Xaa Xaa Ser  
 35                   40                   45  
  
 Asn Asn Tyr Xaa Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Xaa  
 50                   55                   60  
  
 Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
 65                   70                   75                   80  
  
 Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
 85                   90                   95  
  
 Ser Asp Met Phe Asn Tyr Xaa Glu Tyr Cys Thr Ala Asn Ala Val Xaa  
 100                  105                  110  
  
 Gly Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Trp Tyr Phe Asp Val Glu Arg  
 115                  120                  125  
  
 Asn Ser Cys Asn Asn Phe Xaa Tyr Xaa Gly Cys Xaa Xaa Xaa Lys Asn  
 130                  135                  140  
  
 Ser Tyr Xaa Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Xaa Gln  
 145                  150                  155                  160

Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly  
                   165                          170                          175  
 Ala Val Ser  
  
 <210> 12  
 <211> 393  
 <212> DNA  
 <213> Homo sapien  
  
 <220>  
 <221> misc\_feature  
 <222> 390..391  
 <223> /note= "residue 361 is any nucleic acid"  
  
 <220>  
 <221> misc\_feature  
 <222> 390..391  
 <223> /note= "residue 367 is any nucleic acid"  
  
 <220>  
 <221> misc\_feature  
 <222> 384..385  
 <223> /note= "residue 384 is any nucleic acid"  
  
 <220>  
 <221> misc\_feature  
 <222> 367..368  
 <223> /note= "residue 390 is any nucleic acid"  
  
 <400> 12  
 ggccgggtcg tttctgcctt ggctgggatc gctgctcctc tctgggtcc tggccggccg       60  
 accgagaacg cagcatccac gacttctgcc tggtgtcgaa ggtggtgccc agattccggg       120  
 cctccatgcc taggtggtgg tacaatgtca ctgacggatc ctgccagctg tttgtgtatg       180  
 ggggctgtga cgaaaaacagc aataattacc tgaccaagga ggagtgcctc aagaaatgtg       240  
 ccactgtcac agagaatgcc acgggtgacc tggccaccag caggaatgca gcggattcct       300  
 ctgtcccaag tgctcccaga aggcaaggatt cttgaagacc acttcagcga tatgtttcaa       360  
 ntattgnaag aataattgca ccgncaacgn att                                       393  
  
 <210> 13  
 <211> 130  
 <212> PRT  
 <213> Homo sapien  
  
 <220>  
 <221> Region  
 <222> 1..18  
 <223> /label= signal peptide  
  
 <220>  
 <221> Peptide  
 <222> 111..130  
 <223> /note= "Xaa at positions 111, 120, 122, 128, and 130 represents a  
 nonsense or stop codon"  
  
 <400> 13

```

Pro Gly Arg Phe Ser Pro Gly Trp Asp Arg Cys Ser Ser Leu Gly Ser
1           5           10          15

Trp Pro Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser
20          25          30

Lys Val Val Gly Arg Glu Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn
35          40          45

Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly
50          55          60

Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala
65          70          75          80

Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala
85          90          95

Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Xaa Arg
100         105         110

Pro Leu Gln Arg Tyr Val Ser Xaa Ile Xaa Arg Ile Ile Ala Pro Xaa
115         120         125

Thr Xaa
130

<210> 14
<211> 511
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> 425..510
<223> /note= "n at positions 425, 482, and 510 is any nucleic acid"

<400> 14
gcaataatta cctgaccaag gaggagtgcc tcaagaaaatg tgccactgtc acagagaatg      60
ccacgggtga cctggccacc agcaggaatg cagcgattc ctctgtccca agtgctccc      120
gaaggcagga ttctgaagac cactccagcg atatgttcaa ctatgaagaa tactgcaccc      180
ccaacgcagt cactgggcct tgccgtgcat cttccccacg ctggtaactt gacgtggaga      240
ggaactcctg caataacttc atctatggag gctgccgggg caataagaac agctaccgct      300
ctgaggaggc ctgcatgctc cgctgcttcc gccagcagga gaatcctccc ctgccccttg      360
gctcaaaggt ggtggttctg gccggggctg tttcgtgatg gtgttgcatt tttcctggg      420
gagcntccat ggtcttactg attccgggtg gcaaggagga accaggagcg tgccctgcgg      480
ancgtctgga gcttcggaga tgacaagggn t                                511

<210> 15
<211> 169
<212> PRT
<213> Homo sapien

<220>
<221> peptide

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<222> 1..169  
 <223> /note= "Xaa at positions 2, 23, 132, 160, and 167 represent a nonsense or stop codon"

<400> 15  
 Gln Xaa Leu Pro Asp Gln Gly Gly Val Pro Gln Glu Met Cys His Cys  
 1 5 10 15

His Arg Glu Cys His Gly Xaa Pro Gly His Gln Gln Glu Cys Ser Gly  
 20 25 30

Phe Leu Cys Pro Lys Ser Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
 35 40 45

Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr  
 50 55 60

Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg  
 65 70 75 80

Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn  
 85 90 95

Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln  
 100 105 110

Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly  
 115 120 125

Ala Val Ser Xaa Trp Cys Xaa Ser Phe Ser Trp Gly Ala Ser Met Val  
 130 135 140

Leu Leu Ile Pro Gly Gly Lys Glu Glu Pro Gly Ala Cys Pro Ala Xaa  
 145 150 155 160

Arg Leu Glu Leu Arg Arg Xaa Gln Gly  
 165

<210> 16  
 <211> 431  
 <212> DNA  
 <213> Homo sapien

<220>  
 <221> misc\_feature  
 <222> 1..430  
 <223> /note= "n at positions 3, 11, 12, 17, 51 and 429 represent any nucleic acid"

<400> 16  
 gcngcgcgtt nntcgcntgc tgggatcgct gctgcaccc tctggggtcg nggcggccga 60  
 ccgagaacgc agcatccacg acttctgcct ggtgtcgaag gtggtggca gatgccggc 120  
 ctccatgcct aggtggtggt acaatgtcac tgacggatcc tgccagctgt ttgtgtatgg 180  
 gggctgtgac ggaaacagca ataattacct gaccaaggag gagtgcctca agaaatgtgc 240  
 cactgtcaca gagaatgcc a cgggtgaccc ggccaccaggc aggaatgcag cggattcctc 300  
 tgtcccaagt gctcccagaa ggcaggattc ttgaagacca cttcagcgt atgttcaact 360  
 atgaagaata ctggcaccgc caacgcattc actggccctg cgtgcacgc tccccacgctg 420

gtactttgnc g

431

<210> 17  
<211> 424  
<212> DNA  
<213> Homo sapien  
  
<220>  
<221> misc feature  
<222> 1..424  
<223> /note= "n at positions 6, 310 and 408 represent any nucleic acid"  
  
<400> 17  
tgggantcgc tgctcctctc tggggtcctg gcggccgacc gagaacgcag catccacgac 60  
ttctgcctgg tgtcgaaggt ggtgggcaga tgccggcct ccatgcctag gtggtggtac 120  
aatgtcactg acggatcctg ccagctgtt gtgtatgggg gctgtgacgg aaacagcaat 180  
aattacctga ccaaggagga gtgcctcaag aaatgtCCA ctgtcacaga gaatgccacg 240  
ggtgacctgg ccaccagcag gaatgcagcg gattcctctg tcccaagtgc tcccagaagg 300  
caggattctn gaagaccact ccagcgatat gttcaactat gaagaatact gcaccgcaa 360  
cgcagtcact gggccttgcg tggaaatcctt tcccacgctg gnaatttnga cgttgagaag 420  
gaac 424

<210> 18  
<211> 57  
<212> PRT  
<213> Unknown

<220>  
<221>  
<222>  
<223> /note= "Tissue factor pathway inhibitor precursor 1"

<400> 18  
His Ser Phe Cys Ala Phe Lys Ala Asp Asp Gly Pro Cys Lys Ala Ile  
1 5 10 15

Met Lys Arg Phe Phe Phe Asn Ile Phe Thr Arg Gln Cys Glu Glu Phe  
20 25 30

Ile Tyr Gly Gly Cys Glu Gly Asn Gln Asn Arg Phe Glu Ser Leu Glu  
35 40 45

Glu Cys Lys Lys Met Cys Thr Arg Asp  
50 55

<210> 19  
<211> 57  
<212> PRT  
<213> Unknown

<220>  
<223> /note= "Tissue factor pathway inhibitor precursor 1"

<400> 19  
Pro Asp Phe Cys Phe Leu Glu Asp Pro Gly Ile Cys Arg Gly Tyr

1	5	10	15
Ile Thr Arg Tyr Phe Tyr Asn Asn Gln Thr Lys Gln Cys Glu Arg Phe			
20	25		30
Lys Tyr Gly Gly Cys Leu Gly Asn Met Asn Asn Phe Glu Thr Leu Glu			
35	40	45	
Glu Cys Lys Asn Ile Cys Glu Asp Gly			
50	55		
<210> 20			
<211> 57			
<212> PRT			
<213> Unknown			
<220>			
<223> /note= "Tissue factor pathway inhibitor precursor"			
<400> 20			
Pro Ser Trp Cys Leu Thr Pro Ala Asp Arg Gly Leu Cys Arg Ala Asn			
1	5	10	15
Glu Asn Arg Phe Tyr Tyr Asn Ser Val Ile Gly Lys Cys Arg Pro Phe			
20	25	30	
Lys Tyr Ser Gly Cys Gly Gly Asn Glu Asn Asn Phe Thr Ser Lys Gln			
35	40	45	
Glu Cys Leu Arg Ala Cys Lys Lys Gly			
50	55		
<210> 21			
<211> 57			
<212> PRT			
<213> Unknown			
<220>			
<223> /note= "Tissue factor pathway inhibitor precursor 2"			
<400> 21			
Ala Glu Ile Cys Leu Leu Pro Leu Asp Tyr Gly Pro Cys Arg Ala Leu			
1	5	10	15
Leu Leu Arg Tyr Tyr Tyr Arg Tyr Arg Thr Gln Ser Cys Arg Gln Phe			
20	25	30	
Leu Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Tyr Thr Trp Glu			
35	40	45	
Ala Cys Asp Asp Ala Cys Trp Arg Ile			
50	55		
<210> 22			
<211> 57			
<212> PRT			
<213> Unknown			
<220>			
<223> /note= "Tissue factor pathway inhibitor precursor 2"			
<400> 22			
Pro Ser Phe Cys Tyr Ser Pro Lys Asp Glu Gly Leu Cys Ser Ala Asn			

1	5	10	15
Val Thr Arg Tyr Tyr Phe Asn Pro Arg Tyr Arg Thr Cys Asp Ala Phe			
20	25		30
Thr Tyr Thr Gly Cys Gly Asn Asn Asp Asn Asn Phe Val Ser Arg Glu			
35	40	45	
Asp Ser Lys Arg Ala Cys Ala Lys Ala			
50	55		
<210> 23			
<211> 57			
<212> PRT			
<213> Unknown			
<220>			
<223> /note= "Amyloid Precursor Protein homologue"			
<400> 23			
Lys Ala Val Cys Ser Gln Glu Ala Met Thr Gly Pro Cys Arg Ala Val			
1	5	10	15
Met Pro Arg Thr Thr Phe Asp Leu Ser Lys Gly Lys Cys Val Arg Phe			
20	25	30	
Ile Thr Gly Gly Cys Gly Gly Asn Arg Asn Asn Phe Glu Ser Glu Asp			
35	40	45	
Tyr Cys Met Ala Val Cys Lys Ala Met			
50	55		
<210> 24			
<211> 58			
<212> PRT			
<213> Unknown			
<220>			
<223> /note= "Aprotinin"			
<400> 24			
Arg Pro Asp Phe Cys Leu Glu Pro Pro Tyr Thr Gly Pro Cys Lys Ala			
1	5	10	15
Arg Ile Ile Arg Tyr Phe Tyr Asn Ala Lys Ala Gly Leu Cys Gln Thr			
20	25	30	
Phe Val Tyr Gly Gly Cys Arg Ala Lys Arg Asn Asn Phe Lys Ser Ala			
35	40	45	
Glu Asp Cys Met Arg Thr Cys Gly Gly Ala			
50	55		
<210> 25			
<211> 51			
<212> PRT			
<213> Unknown			
<220>			
<223> /note= "Inter alpha-trypsin inhibitor precursor"			
<400> 25			
Cys Gln Leu Gly Tyr Ser Ala Gly Pro Cys Met Gly Met Thr Ser Arg			

1	5	10	15
Tyr Phe Tyr Asn Gly Thr Ser Met Ala Cys Glu Thr Phe Gln Tyr Gly			
20	25		30
Gly Cys Met Gly Asn Gly Asn Asn Phe Val Thr Glu Lys Glu Cys Leu			
35	40		45
Gln Thr Cys			
50			
<210> 26			
<211> 57			
<212> PRT			
<213> Unknown			
<220>			
<223> /note= "Inter alpha-trypsin inhibitor precursor"			
<400> 26			
Val Ala Ala Cys Asn Leu Pro Ile Val Arg Gly Pro Cys Arg Ala Phe			
1	5	10	15
Ile Gln Leu Trp Ala Phe Asp Ala Val Lys Gly Lys Cys Val Leu Phe			
20	25		30
Pro Tyr Gly Gly Cys Gln Gly Asn Gly Asn Lys Phe Tyr Ser Glu Lys			
35	40	45	
Glu Cys Arg Glu Tyr Cys Gly Val Pro			
50	55		
<210> 27			
<211> 57			
<212> PRT			
<213> Unknown			
<220>			
<223> /note= "Amyloid precursor protein"			
<400> 27			
Glu Val Cys Cys Ser Glu Gln Ala Glu Thr Gly Pro Cys Arg Ala Met			
1	5	10	15
Ile Ser Arg Trp Tyr Phe Asp Val Thr Glu Gly Lys Cys Ala Pro Phe			
20	25	30	
Phe Tyr Gly Gly Cys Gly Asn Arg Asn Asn Phe Asp Thr Glu Glu			
35	40	45	
Tyr Cys Met Ala Val Cys Gly Ser Ala			
50	55		
<210> 28			
<211> 51			
<212> PRT			
<213> Unknown			
<220>			
<223> /note= "Collagen alpha-3 (VI) precursor"			
<400> 28			
Cys Lys Leu Pro Lys Asp Glu Gly Thr Cys Arg Asp Phe Ile Leu Lys			

1	5	10	15	
Trp Tyr Tyr Asp Pro Asn Thr Lys Ser Cys Ala Arg Phe Trp Tyr Gly				
20	25		30	
Gly Cys Gly Gly Asn Glu Asn Lys Phe Gly Ser Gln Lys Glu Cys Glu				
35	40		45	
Lys Val Cys				
50				
<210> 29				
<211> 57				
<212> PRT				
<213> Unknown				
<220>				
<223> /note= "HKI-B9"				
<400> 29				
Pro Asn Val Cys Ala Phe Pro Met Glu Lys Gly Pro Cys Gln Thr Tyr				
1	5	10	15	
Met Thr Arg Trp Phe Phe Asn Phe Glu Thr Gly Glu Cys Glu Leu Phe				
20	25		30	
Ala Tyr Gly Gly Cys Gly Gly Asn Ser Asn Asn Phe Leu Arg Lys Glu				
35	40		45	
Lys Cys Glu Lys Phe Cys Lys Phe Thr				
50	55			
<210> 30				
<211> 46				
<212> DNA				
<213> S. cerevisiae				
<400> 30				
gccaagcttg gataaaagat atgaagaata ctgcaccgcc aacgca			46	
<210> 31				
<211> 35				
<212> DNA				
<213> S. cerevisiae				
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<400> 40		
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<210> 41		
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<212> DNA		
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<400> 41		
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ccttgcgtg catccttccc acgctggta tttgacgtgg agagg		105
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cttattgccc cggcagcctc catagatgaa gttattgcag gagttcctct ccacgtcaa		120
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ttcatctatg gaggctgccg gggcaataag aacagctacc gctctgagga ggcctgcatg		180
ctccgctgct tccgccagta gggatcc		207
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Leu Leu Ser Gly Val Leu Ala Ala Asp Arg Glu Arg Ser Ile His Asp		
20 25 30		

Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro  
   35                          40                          45  
 Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr  
   50                          55                          60  
 Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys  
   65                          70                          75                          80  
 Leu Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala  
   85                          90                          95  
 Thr Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg  
   100                         105                          110  
 Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn Tyr Glu Glu Tyr  
   115                         120                          125  
 Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg  
   130                         135                          140  
 Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly  
   145                         150                          155                          160  
 Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met  
   165                         170                          175  
 Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Leu Pro Leu Gly Ser  
   180                         185                          190  
 Lys Val Val Val Leu Ala Gly Leu Phe Val Met Val Leu Ile Leu Phe  
   195                         200                          205  
 Leu Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala Arg Arg Asn Gln  
   210                         215                          220  
 Glu Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp Asp Lys Glu Gln  
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 Leu Val Lys Asn Thr Tyr Val Leu  
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<210> 46  
<211> 213  
<212> PRT  
<213> Homo sapien  
<400> 46  
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  20                         25                                  30  
Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser  
  35                         40                                  45  
Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
  50                         55                                  60  
Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
  65                         70                                  75                          80



Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala  
 130 135 140  
 Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn  
 145 150 155 160  
 Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu  
 165 170 175  
 Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Leu  
 180 185 190  
 Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly Leu Phe Val Met Val  
 195 200 205  
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 210 215 220  
 Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val Trp Ser Phe Gly Asp  
 225 230 235 240  
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 <212> PRT  
 <213> Homo sapiens  
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 20 25 30  
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 35 40 45  
 Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
 50 55 60  
 Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
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 Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
 85 90 95  
 Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr  
 100 105 110  
 Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg  
 115 120 125  
 Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn  
 130 135 140  
 Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln  
 145 150 155 160  
 Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly  
 165 170 175  
 Leu Phe Val Met Val Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr  
 180 185 190

Leu Ile Arg Val Ala Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val  
 195 200 205  
 Trp Ser Ser Gly Asp Asp Lys Glu Gln Leu Val Lys Asn Thr Tyr Val  
 210 215 220  
 Leu  
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 <211> 252  
 <212> PRT  
 <213> Homo sapien  
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 <222> 1..18  
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 Ser Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg  
 35 40 45  
 Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln  
 50 55 60  
 Leu Phe Val Tyr Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr  
 65 70 75 80  
 Lys Glu Glu Cys Leu Lys Cys Ala Thr Val Thr Glu Asn Ala Thr  
 85 90 95  
 Gly Asp Leu Ala Thr Ser Arg Asn Ala Asp Ser Ser Val Pro Ser  
 100 105 110  
 Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn  
 115 120 125  
 Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala  
 130 135 140  
 Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn  
 145 150 155 160  
 Phe Ile Tyr Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu  
 165 170 175  
 Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Leu  
 180 185 190  
 Pro Leu Gly Ser Lys Val Val Leu Ala Gly Leu Phe Val Met Val  
 195 200 205  
 Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala  
 210 215 220  
 Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp

225	230	235	240
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Asp Lys Glu Gln Leu Val Lys Asn Thr Tyr Val Leu  
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<220>  
 <223> /note= "Human Bikunin protein fragment"

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 20                   25                           30

Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu  
 35                   40                           45

Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr  
 50                   55                           60

Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg Gln  
 65                   70                           75                           80

Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys  
 85                   90                           95

Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp  
 100                   105                           110

Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly  
 115                   120                           125

Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu  
 130                   135                           140

Arg Cys  
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<210> 51  
 <211> 170  
 <212> PRT  
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<220>  
 <223> /note= "Human Bikunin protein fragment"

<400> 51  
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Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr  
 20                   25                           30

Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser  
 35                   40                           45

Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val

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Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp		
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Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser		
85	90	95
Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr		
100	105	110
Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg		
115	120	125
Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn		
130	135	140
Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln		
145	150	155
Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys		
165	170	
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<211> 170		
<212> PRT		
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<223> /note= "Human Bikunin protein fragment"		
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Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val		
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Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr		
20	25	30
Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser		
35	40	45
Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val		
50	55	60
Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp		
65	70	75
Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser		
85	90	95
Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr		
100	105	110
Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg		
115	120	125
Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn		
130	135	140
Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln		
145	150	155
Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys		

165

170

<210> 53  
<211> 27  
<212> PRT  
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<220>  
<223> /note= "Signal peptide of Human Bikunin protein"

<400> 53  
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Leu Gly Ser Leu Leu Leu Ser Gly Val Leu Ala  
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<210> 54  
<211> 23  
<212> PRT  
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<220>  
<223> Human Bikunin protein fragment

<400> 54  
Met Leu Arg Ala Glu Ala Asp Gly Asn Ser Arg Leu Leu Gly Ser Leu  
1 5 10 15

Leu Leu Ser Gly Val Leu Ala  
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<210> 55  
<211> 102  
<212> DNA  
<213> Artificial sequence

<220>  
<223> /note= "Oligomer for preparing expression construct"

<400> 55  
gaagggtataa gcttggataa aagagaagaa tactgtactg ctaatgctgt tactggtcca 60  
tgttagagctt cttttccaag atggtacttt gatgttggaaa ga 102

<210> 56  
<211> 129  
<212> DNA  
<213> Artificial sequence

<220>  
<223> Oligomer for preparing expression construct

<400> 56  
actggatcct cattggcgaa aacatctcaa catacaggct tcttcagatc tgtaagaatt 60  
tttattacct ctacaaccac cgtaaataaaa attattacaa gaatttcttt caacatcaaa 120  
gtaccatct 129

<210> 57  
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<213> Artificial sequence

<220>
<223> /note= "Oligomer for preparing expression construct"

<400> 57
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ggccatgtc gagttttt tccaagatgg tactttatgt tgaaaga                      108

<210> 58
<211> 117
<212> DNA
<213> Artificial sequence

<220>
<223> /note= "Oligomer for preparing expression construct"

<400> 58
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gctgttactg gtccatgttag agttttttt ccaagatggt actttatgt tgaaaga          117

<210> 59
<211> 20
<212> DNA
<213> Homo sapiens

<400> 59
cacctgatcg cgaagacccc                                         20

<210> 60
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<213> Homo sapiens

<400> 60
ctggcgaaag cagcgagca tgc                                         23

<210> 61
<211> 45
<212> DNA
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<220>
<223> /note= "Oligomer for preparing Bikunin expression construct"

<400> 61
cgcgtctcggtt ctgacctggc cctgcagatg ggcacgtgt gcggg                 45
<210> 62
<211> 60
<212> DNA
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<220>
<223> /note= "Oligomer for preparing Bikunin construct"

<400> 62
ctgccccctt gctcaaagta ggaagatctt ccccccgggg gggtggttct ggcggggctg      60
<210> 63
<211> 14
<212> PRT

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<213> Homo sapien

<220>
<223> /note= "Human Bikunin protein fragment"

<400> 63
Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Pro Leu Gly
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<210> 64
<211> 20
<212> PRT
<213> Homo sapien

<220>
<223> /note= "Human Bikunin protein fragment"

<400> 64
Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val
1 5 10 15

Val Gly Arg Cys
20

<210> 65
<211> 20
<212> PRT
<213> Homo sapien

<220>
<223> /note= "Human Bikunin protein fragment"

<400> 65
Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys
1 5 10 15

Arg Ala Ser Phe
20

<210> 66
<211> 10
<212> PRT
<213> Homo sapien

<220>
<223> /note= "Human Bikunin protein fragment"

<400> 66
Pro Tyr Val Asp Gly Ser Gln Phe Tyr Gly
1 5 10

<210> 67
<211> 55
<212> PRT
<213> Homo sapien

<220>
<223> /note= "Human Bikunin protein fragment"

<400> 67
Val Val Val Leu Ala Gly Leu Phe Val Met Val Leu Ile Leu Phe Leu
1 5 10 15

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Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala Arg Arg Asn Gln Glu  
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Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp Asp Lys Glu Gln Leu  
           35                  40                  45

Val Lys Asn Thr Tyr Val Leu  
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<210> 68

<211> 43

<212> PRT

<213> Homo sapien

<220>

<223> /note= "Human Bikunin protein fragment"

<400> 68

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Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala Arg Arg Asn Gln Glu  
   20                  25                  30

Arg Ala Leu Arg Thr Val Trp Ser Phe Gly Asp  
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<210> 69

<211> 55

<212> PRT

<213> Homo sapien

<220>

<223> /note= "Human Bikunin protein fragment"

<400> 69

Val Val Val Leu Ala Gly Leu Phe Val Met Val Leu Ile Leu Phe Leu  
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Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala Arg Arg Asn Gln Glu  
   20                  25                  30

Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp Asp Lys Glu Gln Leu  
   35                  40                  45

Val Lys Asn Thr Tyr Val Leu  
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<210> 70

<211> 213

<212> PRT

<213> Homo sapien

<220>

<223> /note= "Human Bikunin protein fragment"

<400> 70

Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val  
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Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr  
   20                  25                  30

Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser  
 35 40 45  
 Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
 50 55 60  
 Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
 65 70 75 80  
 Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
 85 90 95  
 Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr  
 100 105 110  
 Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg  
 115 120 125  
 Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn  
 130 135 140  
 Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln  
 145 150 155 160  
 Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly  
 165 170 175  
 Leu Phe Val Met Val Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr  
 180 185 190  
 Leu Ile Arg Val Ala Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val  
 195 200 205  
 Trp Ser Phe Gly Asp  
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 <210> 71  
 <211> 225  
 <212> PRT  
 <213> Homo sapien  
 <220>  
 <223> /note= "Human Bikunin protein fragment"  
 <400> 71  
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 35 40 45  
 Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
 50 55 60  
 Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
 65 70 75 80  
 Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
 85 90 95

Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr  
100 105 110

Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg  
115 120 125

Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn  
130 135 140

Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln  
145 150 155 160

Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly  
165 170 175

Leu Phe Val Met Val Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr  
180 185 190

Leu Ile Arg Val Ala Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val  
195 200 205

Trp Ser Ser Gly Asp Asp Lys Glu Gln Leu Val Lys Asn Thr Tyr Val  
210 215 220

Leu  
225